

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A wireless communications apparatus, comprising:

a transmission circuit device block including an antenna and a plurality of transmission active circuits, wherein the plurality of transmission active circuits includes at least a transmission amplifier circuit and a first transmission active circuit,

wherein:

the transmission circuit device block is laid out so that a combined length of transmission lines connecting circuit members, which includes at least a first circuit member and a second circuit member, in a first block circuit blocks between an output terminal of the transmission amplifier an active circuit placed at an immediately-preceding-stage of the antenna and an input terminal of the antenna is shorter than a combined length of transmission lines connecting circuit blocks between an input terminal of the transmission amplifier active circuit at the immediately-preceding-stage of the antenna and an output terminal of an the first transmission active circuit at a preceding-stage of the transmission amplifier active circuit at the immediately-preceding-stage of the antenna.

2. (Currently amended) A wireless communications apparatus, comprising:

a transmission circuit device block including an antenna and a transmission active circuit block made up of a plurality of active circuits wherein the plurality of active circuits includes at least a final-stage transmission amplifier circuit and a next-to-last-stage transmission active circuit placed at an immediately-preceding-stage of the final-stage transmission amplifier circuit,

wherein:

the transmission circuit device block is laid out so that a combined length of transmission lines connecting circuit members, which includes at least a first circuit member and a second circuit member, in a first block circuit blocks between an output terminal of the transmission active circuit block and an input terminal of the antenna is shorter than a combined length of transmission lines connecting circuit blocks between an input terminal of a-the final-stage transmission amplifier active circuit of the active circuit block and an output terminal of the next-to-last-stage transmission active circuit an active circuit at a preceding stage of the active circuit at the final stage of in the transmission active circuit block.

3. (Currently amended) The wireless communications apparatus as set forth in claim 1, wherein:

the transmission amplifier active circuit placed at the immediately preceding stage of the antenna is a power amplifier.

4. (Currently amended) The wireless communications apparatus as set forth in claim 2, wherein:

~~the final stage active circuit of the transmission amplifier active circuit block~~ is a power amplifier.

5. (Currently amended) A wireless communications apparatus, comprising:

a reception circuit ~~device block~~ including an antenna and a plurality of ~~reception active circuits, wherein the plurality of reception active circuits includes at least a reception amplifier circuit and a first reception active circuit~~,
wherein:

~~the reception circuit ~~device block~~ is laid out so that a combined length of transmission lines connecting ~~circuit members, which includes at least a first circuit member and a second circuit member, in a first block~~ circuit blocks between an output terminal of the antenna and an input terminal of ~~an the reception amplifier active circuit~~ placed at an immediately-following-stage of the antenna is shorter than a combined length of transmission lines connecting ~~circuit blocks~~ between an output terminal of the ~~reception amplifier active circuit~~ at the immediately-following-stage of the antenna and an input terminal of ~~an the first reception active circuit~~ at a following-stage of the ~~reception amplifier active circuit at the immediately-following stage of the antenna~~.~~

6. (Currently amended) A wireless communications apparatus, comprising:

a reception circuit device block including an antenna and an reception active circuit block made up of a plurality of active circuits, wherein the plurality of active circuits includes at least a final-stage reception amplifier circuit and a second-stage reception active circuit placed at an immediately-following-stage of the first-stage reception amplifier circuit,

wherein:

the reception circuit device block is laid out so that a combined length of transmission lines connecting circuit members, which includes at least a first circuit member, which include at least a first circuit member and a second circuit member, in a first block circuit blocks between an output terminal of the antenna and an input terminal of the reception active circuit block is shorter than a combined length of transmission lines connecting circuit blocks between an output terminal of a-the first-stage reception amplifier active circuit of the active circuit block and an input terminal of a-the second-stage reception active circuit of in the reception active circuit block.

7. (Currently amended) The wireless communications apparatus as set forth in claim 5, wherein:

the reception amplifier active circuit placed at the immediately following stage of the antenna is a low-noise amplifier.

8. (Currently amended) The wireless communications apparatus as set forth in claim 6, wherein:

the reception amplifier first stage active circuit of the active circuit block is a low-noise amplifier.

9. (Currently amended) A wireless communications apparatus, comprising:

a transmission circuit device block including an antenna and a plurality of transmission active circuits, wherein the plurality of transmission active circuits includes at least a transmission amplifier circuit and a first active circuit; and

a reception circuit device block including an the antenna and a plurality of reception active circuits, wherein the plurality of reception active circuits include at least a reception amplifier circuit and the first active circuit,

wherein:

the transmission circuit device block is laid out so that a combined length of transmission lines connecting circuit members, which include at least a first circuit member and a second circuit member, in a first block circuit blocks between an output terminal of the transmission amplifier an active circuit placed at an immediately-preceding-stage of the antenna and an input terminal of the

antenna is shorter than a combined length of transmission lines connecting circuit blocks between an input terminal of the transmission amplifier active circuit at the immediately-preceding-stage of the antenna and an output terminal of an the first active circuit at a preceding-stage of the transmission amplifier active circuit at the immediately preceding stage of the antenna; and

the reception circuit device block is laid out so that a combined length of transmission lines connecting circuit members, which include at least the first circuit member and the second circuit member, in the first block circuit blocks between an output terminal of the antenna and an input terminal of the reception amplifier circuit an active circuit placed at an immediately-following-stage of the antenna is shorter than a combined length of transmission lines connecting circuit blocks between an output terminal of the reception amplifier active circuit at the immediately-following-stage of the antenna and an input terminal of an the first active circuit at a following-stage of the reception amplifier active circuit at the immediately following stage of the antenna.

10. (Currently amended) A wireless communications apparatus, comprising:

a transmission circuit device block including an antenna and a transmission active circuit block made up of a plurality of active circuits, wherein the plurality of active circuits includes at least a final-stage transmission amplifier circuit and a next-to-last-stage transmission active

circuit and a next-to-last-stage transmission active circuit placed at an immediately-preceding-stage of the final-stage transmission amplifier circuit;
and

a reception circuit device block including an antenna and a reception active circuit block made up of a plurality of active circuits, wherein the plurality of active circuits includes at least a first-stage reception amplifier circuit and a second-stage reception active circuit placed at an immediately-following-stage of the first-stage reception amplifier circuit,

wherein:

the transmission circuit device block is laid out so that a combined length of transmission lines connecting circuit members, which include at least a first circuit member and a second circuit member, in a first block circuit blocks between an output terminal of the transmission active circuit block and an input terminal of the antenna is shorter than a combined length of transmission lines connecting circuit blocks between an input terminal of the a final-stage transmission amplifier circuit active circuit of the active circuit block and an output terminal of the next-to-last-stage transmission active circuit-an active circuit at a preceding stage of the active circuit at the final stage of the active circuit block; and

the reception circuit device block is laid out so that a combined length of transmission lines connecting circuit members, which include at least the first circuit member and the second circuit member, in the first block circuit blocks

between an output terminal of the antenna and an input terminal of the reception active circuit block is shorter than a combined length of transmission lines connection ~~circuit blocks~~ between an output terminal of the a first-stage active circuit ~~of the active circuit block~~ and an input terminal of the a-second-stage reception active circuit in the reception active circuit block ~~of the active circuit block~~.

11. (Currently amended) The wireless communications apparatus as set forth in claim 1, wherein,

the transmission circuit device block is laid out so that a part or entire of the first block circuit blocks from the transmission amplifier circuit active ~~circuit~~ at the immediately-preceding stage of the antenna to the antenna are formed on a substrate different from a substrate on which the first transmission active circuit at the preceding-stage of the transmission amplifier active circuit at the immediately-preceding-stage of the antenna is formed.

12. (Currently amended) The wireless communications apparatus as set forth in claim 2, wherein,

the plurality of transmission active circuits further includes a second transmission active circuit at a preceding stage of the transmission active circuit block.

the transmission circuit device block is laid out so that a part or entire of the first block circuit blocks from the final-stage transmission amplifier active circuit of the transmission active circuit block to the antenna ~~are~~is formed on a substrate different from a substrate on which the second transmission ~~an~~ active circuit at the a preceding-stage of the transmission active circuit block is formed.

13. (Currently amended) The wireless communications apparatus as set forth in claim 1, wherein,

the transmission circuit device block is laid out so that a part or entire of the first block circuit blocks from the active circuit at the immediately preceding stage of the antenna to the antenna ~~are~~is formed as one circuit group block different from a circuit-block group in which the first transmission active circuit at the preceding stage of the active circuit at the immediately preceding stage of the antenna is formed.

14. (Currently amended) The wireless communications apparatus as set forth in claim 2, wherein,

the plurality of transmission active circuits further includes a second transmission active circuit at a preceding stage of the transmission active circuit block.

the transmission circuit device block is laid out so that a part or entire of the first block circuit blocks from the final stage active circuit of the active circuit block to the antenna are is formed as one circuit group block different from a circuit block group in which an the second transmission active circuit at a preceding stage of the transmission active circuit block is formed.

15. (Currently amended) The wireless communications apparatus as set forth in claim 5, wherein,

the reception circuit device block is laid out so that a part or entire of the first block circuit blocks from the antenna to the active circuit at the immediately following stage of the antenna are is formed on a substrate different from a substrate on which the first reception active circuit at the following stage of the active circuit at the immediately following stage of the antenna is formed.

16. (Currently amended) The wireless communications apparatus as set forth in claim 6, wherein,

the plurality of transmission active circuits further includes a second transmission active circuit at a following stage of the reception active circuit block.

the reception circuit device block is laid out so that a part or entire of the first block circuit blocks from the antenna to the first stage active circuit of the

active circuit block are is formed on a substrate different from a substrate on which the second reception active circuit at a following stage of the active circuit block is formed.

17. (Currently amended) The wireless communications apparatus as set forth in claim 5, wherein,

the reception circuit device block is laid out so that a part or entire of the first block circuit blocks from the antenna to the active circuit at the immediately following stage of the antenna are is formed as one circuit group block different from a circuit group block in which the first reception active circuit at the following-stage of the reception amplifier active circuit at the immediately-following-stage of the antenna is formed.

18. (Currently amended) The wireless communications apparatus as set forth in claim 6, wherein,

the plurality of transmission active circuits further includes a second transmission active circuit at a following stage of the reception active circuit block.

the reception circuit device block is laid out so that a part or entire of the first block circuit blocks from the antenna to the first stage active circuit of the active circuit block are is formed as one circuit group block different from a

~~circuit group block in which the second reception active circuit at a following stage of the active circuit block is formed.~~

19. (Currently amended) A wireless communications apparatus, comprising:

~~a transmission circuit device block including an antenna and a plurality of transmission active circuits, wherein the plurality of transmission active circuits includes at least a transmission amplifier circuit, and a first transmission active circuit; and~~

~~a reception circuit device block including the an-antenna and a plurality of reception active circuits, wherein the plurality of reception active circuits includes at least a reception amplifier circuit, and the first reception active circuit,~~

wherein:

~~the transmission circuit device block is laid out so that a combined length of transmission lines connecting circuit members which include at least a first circuit member and a second circuit member, in a first block circuit blocks between an output terminal of the transmission amplifier an active circuit placed at an immediately-preceding-stage of the antenna and an input terminal of the antenna is shorter than a combined length of transmission lines connecting circuit blocks between an input terminal of the transmission amplifier active circuit at the immediately preceding stage of the antenna and an output terminal~~

of an the first active circuit at a preceding-stage of the transmission amplifier active circuit at the immediately preceding stage of the antenna; and a part or entire of the first block circuit blocks from the active circuit at the immediately preceding stage of the antenna to the antenna are is formed on a substrate different from a substrate on which the first active circuit at the preceding stage of the active circuit at the immediately preceding stage of the antenna is formed, and

the reception circuit device block is laid out so that a combined length of transmission lines connecting circuit members, which include at least the first circuit member and the second circuit member, in the first block circuit blocks between an output terminal of the antenna and an input terminal of the reception amplifier an active circuit placed at an immediately-following-stage of the antenna is shorter than a combined length of transmission lines connecting circuit blocks between an output terminal of the reception amplifier active circuit at the immediately-following-stage of the antenna and an input terminal of the first an active circuit at a following-stage of the reception amplifier active circuit at the immediately-following-stage of the antenna; and a part or entire of the first block circuit blocks from the antenna to the active circuit at the immediately following stage of the antenna are is formed on a substrate different from a substrate on which the first active circuit at the following stage of the active circuit at the immediately following stage of the antenna is formed.

20. (Cancelled)

21. (Currently amended) A wireless communications apparatus, comprising:

a transmission circuit device block including an antenna and a plurality of transmission active circuits, wherein the plurality of transmission active circuits includes at least a transmission amplifier circuit, and a first transmission active circuit; and

a reception circuit device block including an the antenna and a plurality of reception active circuits, wherein the plurality of reception active circuits includes at least a reception amplifier circuit, and the first reception active circuit,

wherein:

the transmission circuit device block is laid out so that a combined length of transmission lines connecting circuit members, which include at least a first circuit member and a second circuit member, in a first block circuit blocks between an output terminal of the transmission amplifier an active circuit placed at an immediately-preceding-stage of the antenna and an input terminal of the antenna is shorter than a combined length of transmission lines connecting circuit blocks between an input terminal of the transmission amplifier active circuit at the immediately-preceding-stage of the antenna and an output terminal

of the first an-active circuit at a preceding-stage of the transmission amplifier active-circuit at the immediately-preceding-stage of the antenna; and a part or entire of the first block circuit blocks from the transmission amplifier active circuit at the immediately-preceding stage of the antenna to the antenna, ~~are which part or entire of the first block includes at least the first circuit member and the second circuit member is formed as one circuit group block~~ different from a circuit group block in which the first active circuit at the preceding-stage of the transmission amplifier active-circuit at the immediately-preceding-stage of the antenna is formed, and

the reception circuit device block is laid out so that a combined length of transmission lines connecting circuit members, which include at least the first circuit member and the second circuit member, in the first block circuit blocks between an output terminal of the antenna and an input terminal of the reception amplifier an-active-circuit placed at an immediately-following-stage of the antenna is shorter than a combined length of transmission lines connecting circuit blocks between an output terminal of the reception amplifier active circuit at the immediately-following-stage of the antenna and an input terminal of the first an-active circuit at a following-stage of the reception amplifier active-circuit at the immediately-following-stage of the antenna; and a part or entire of the first block circuit blocks from the antenna to the reception amplifier active-circuit at the immediately-following stage of the antenna are formed as one circuit block different from a circuit block in which the first

active circuit at the following-stage of the reception amplifier active-circuit at the immediately-following-stage of the antenna is formed.

22. (Cancelled)

23. (Currently amended) The wireless communications apparatus as set forth in claim 1, wherein,

the first transmission active circuit ~~one of the circuit blocks~~ is made up of either an intermediate frequency circuit or a modulation/demodulation circuit, and a wireless frequency input-output circuit which are provided on a single package or on a single chip.

24. (Cancelled)

25. (Currently amended) The wireless communications apparatus as set forth in claim 5, wherein,

the first reception active circuit ~~one of the circuit blocks~~ is made up of either an intermediate frequency circuit or a modulation/demodulation circuit, and a wireless frequency input-output circuit which are provided on a single package or on a single chip.

26. (Cancelled)

27. (Currently amended) The wireless communications apparatus as set forth in claim 9, wherein,

the first active circuit one of the circuit blocks is made up of either an intermediate frequency circuit or a modulation/demodulation circuit, and a wireless frequency input-output circuit which are provided on a single package or on a single chip.

28. (Cancelled)

29. (Original) The wireless communications apparatus as set forth in claim 1, wherein,

the antenna is a linear antenna.

30. (Original) The wireless communications apparatus as set forth in claim 2, wherein,

the antenna is a linear antenna.

31. (Original) The wireless communications apparatus as set forth in claim 5, wherein,

the antenna is a linear antenna.

32. (Original) The wireless communications apparatus as set forth in claim 6, wherein,
the antenna is a linear antenna.

33. (Original) The wireless communications apparatus as set forth in claim 9, wherein,
the antenna is a linear antenna.

34. (Original) The wireless communications apparatus as set forth in claim 10, wherein,
the antenna is a linear antenna.

35. (Currently amended) The wireless communications apparatus as set forth in claim 1, wherein,
the a combined lengths length of the transmission lines eonnecting circuit
bloeks-is are represented by a high-frequency transmission loss.

36. (Currently amended) The wireless communications apparatus as set forth in claim 2, wherein,
the a combined lengths length of the transmission lines eonnecting circuit
bloeks-is are represented by a high-frequency transmission loss.

37. (Currently amended) The wireless communications apparatus as set forth in claim 5, wherein,

the a combined lengths length of the transmission lines connecting circuit blocks is are represented by a high-frequency transmission loss.

38. (Currently amended) The wireless communications apparatus as set forth in claim 6, wherein,

the a combined lengths length of the transmission lines connecting circuit blocks is are represented by a high-frequency transmission loss.

39. (Currently amended) The wireless communications apparatus as set forth in claim 9, wherein,

the a combined lengths length of the transmission lines connecting circuit blocks is are represented by a high-frequency transmission loss.

40. (Currently amended) The wireless communications apparatus as set forth in claim 10, wherein,

the a combined lengths length of the transmission lines connecting circuit blocks is are represented by a high-frequency transmission loss.

41. (Withdrawn) An information processing terminal apparatus with a wireless application, comprising:

a wireless application section; and
 an antenna section that includes an antenna and is physically separated
from the wireless application section,

 wherein:

 the antenna constitutes a front end section together with an active circuit
at the immediately preceding/following stage of the antenna, the front end
section being separated from the wireless application section and being placed
either on a same substrate on which the antenna section is provided, or in the
vicinity of the antenna section.